Chapter 9 Examining the Query Editor

You have already run queries in several lessons. The primary way to get data into the selected set is to run a query. Several prewritten queries come with NASIS, and whether you intend to write queries or not, you may want to better understand how queries are developed. In this lesson, you will examine the query editor. (Chapter 17 discusses writing queries.)

A query has ownership the same way data mapunits, legends and area types have ownership. Like other owned objects, queries are not loaded until you run a query that retrieves them. You can create, save, and share queries.

Loading the Query Table

1. On the **File** menu, click **New**, then click **File**, **Select**.

2. On the Select Manager choose the **Tutorial – Query name** query.

3. Click **Apply**.

4. In the Query Name MATCHES field type **Tut*** then click **Apply**.

5. A message will inform you that 13 rows were added to the Query table. Click **OK**.

6. Click **Cancel** to close the parameters box, then click **Cancel** to close the Select Manager.
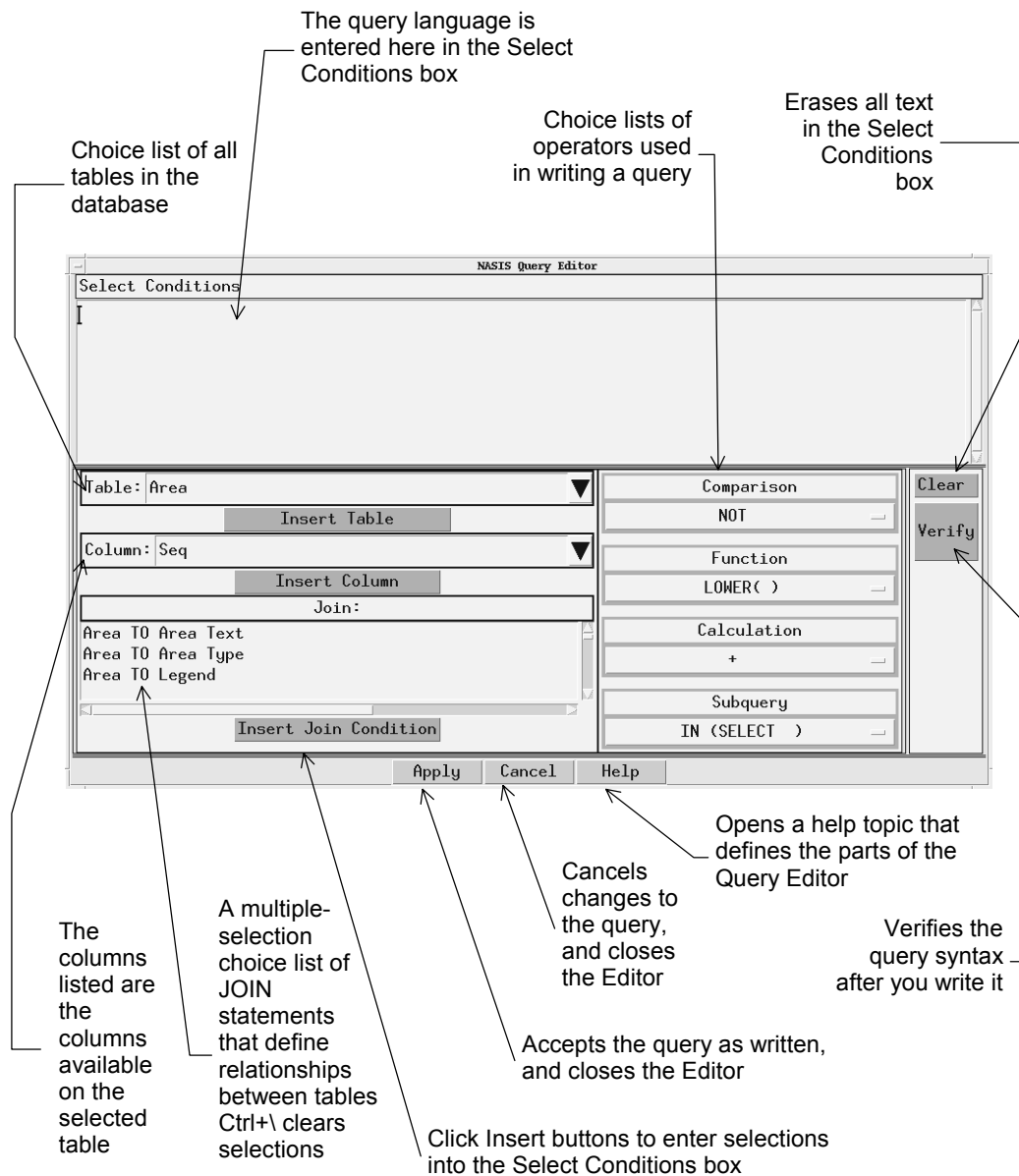

Examining a Query

1. From the **View** menu, select **Queries**, then click **Query**.

2. In the **Query** table, click on **Query...** in the **Tutorial - Component name** row.
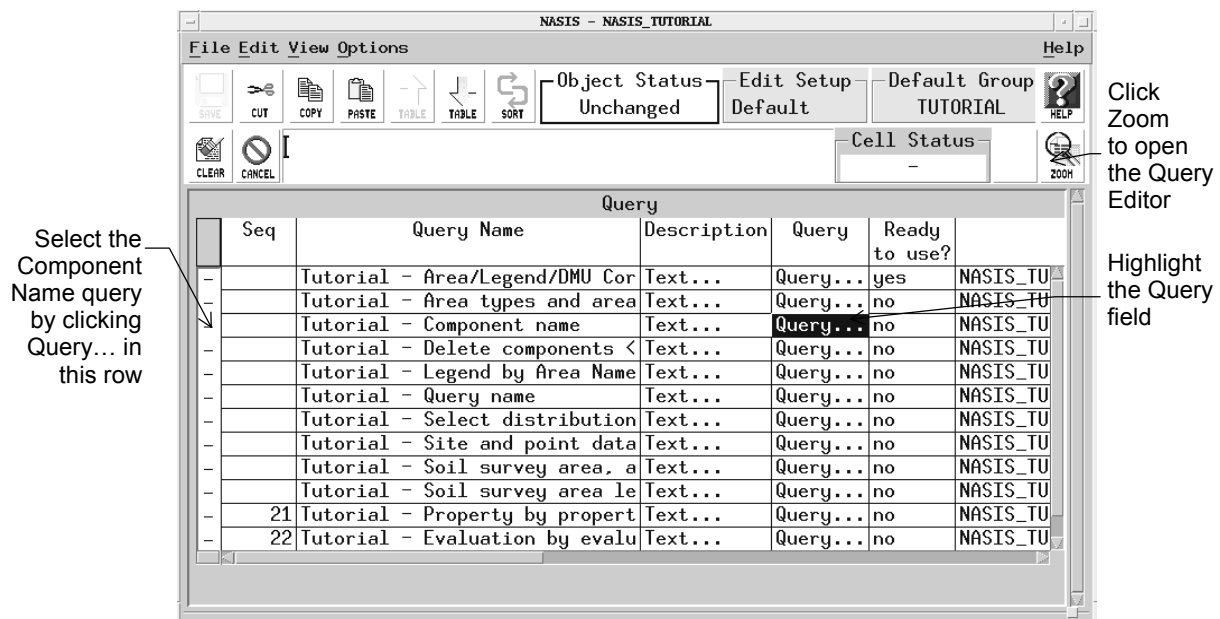
3. Click the **Zoom** button to open the Query Editor—a specialized editor for writing NASIS queries.

The NASIS Query Editor appears. Take a moment to examine the parts of this editor.

The query language is
entered here in the Select
Conditions box

Choice lists of
operators used
in writing a query

Erases all text
in the Select
Conditions
box

Choice list of all
tables in the
database

```
                           NASIS Query Editor
Select Conditions
I

Table: Area                          ▼    |  Comparison  |  | Clear |
        Insert Table                       |    NOT      ─|  | Verify|
Column: Seq                          ▼    |  Function    |
        Insert Column                      |  LOWER( )   ─|
        Join:                              |  Calculation |
Area TO Area Text                          |      +      ─|
Area TO Area Type
Area TO Legend                             |  Subquery    |
                                           |  IN (SELECT )─|
     Insert Join Condition
                    Apply   Cancel   Help
```

The
columns
listed are
the
columns
available
on the
selected
table

A multiple-
selection
choice list of
JOIN
statements
that define
relationships
between tables
Ctrl+\ clears
selections

Cancels
changes to
the query,
and closes
the Editor

Opens a help topic that
defines the parts of the
Query Editor

Verifies the
query syntax
after you write it

Accepts the query as written,
and closes the Editor

Click Insert buttons to enter selections
into the Select Conditions box

5. In the **Table** field, click the black triangle button.

    Note: A choice list displays all NASIS tables. Table names are selected for a FROM clause. The FROM clause specifies tables from which to select data.

```
Area
Area Text
Area Type
Calculation
Calculation Text
Component
Component Canopy Cover
Component Crop Yield
```

Select tables one
at a time for
FROM clause

Scroll to locate
table name

6. With the **Area** table highlighted, click **Insert Table**.

7. In the Column field, click the black triangle button.

```
Seq
Area Symbol
Area Name
Area Acres
Rec ID
```
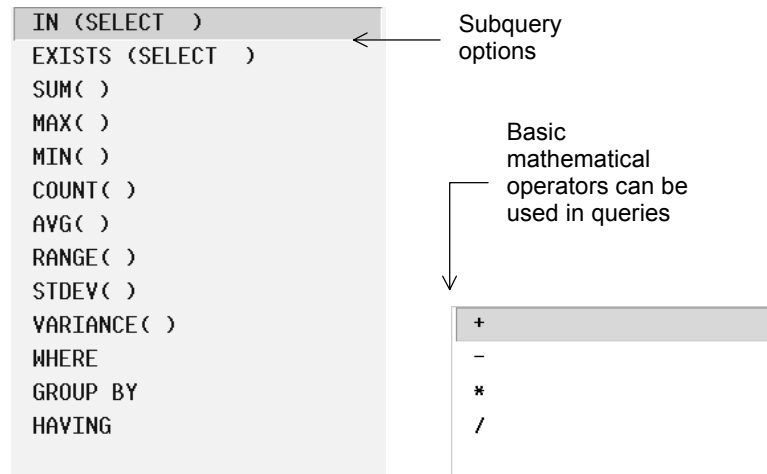
The Column field lists the columns in the table highlighted in the Table field. A scroll bar appears if the table has several columns.

Note: Column names focus action within target tables. The column names and next several items are used in the WHERE clause. The WHERE clause specifies the conditions to be placed on data elements.

8. Click on the small rectangles within the rectangles below Comparison, Function, Calculation and Subquery to display query language elements that you can include in your queries.

List of functions

```
LOWER( )
UPPER( )
ROUND( )
TRUNC( )
LENGTH( )
DAY( )
MONTH( )
WEEKDAY( )
YEAR( )
TODAY
DATETIME    TO
ABS( )
MOD( )
POW( )
SQRT( )
ROOT( )
EXP( )
LOGN( )
LOG10( )
COS( )
SIN( )
TAN( )
ACOS( )
ASIN( )
ATAN( )
ATAN2( )
```

List of comparison operators

```
NOT
AND
OR
=
!=
>
<
>=
<=
IS NULL
IS NOT NULL
LIKE " "
MATCHES " "
IMATCHES " "
BETWEEN    AND
IN ( )
```
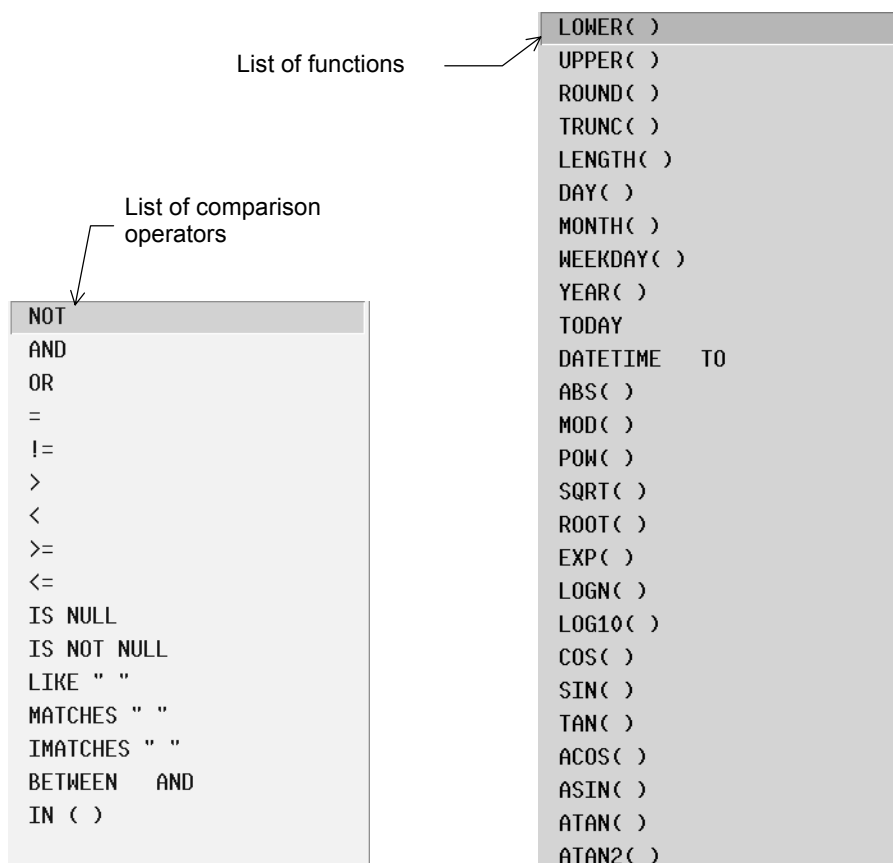
Note: The use of comparison operators is sometimes limited by data types. Data types are discussed in Appendix B. Data type information for all table columns in NASIS can be found in the online help system.

```
IN (SELECT  )              Subquery
EXISTS (SELECT  )          options
SUM( )
MAX( )                         Basic
MIN( )                         mathematical
COUNT( )                       operators can be
AVG( )                         used in queries
RANGE( )
STDEV( )
VARIANCE( )                    +
WHERE                          −
GROUP BY                       *
HAVING                         /
```

9. In addition to viewing the different query language items that can be included in your queries, check out the online help for the Query Editor. Click the **Help** button.

10. After viewing the query editor and online help, click **Cancel** to close the Query Editor.

    Note: You have finished this lesson.